IFW16

RAW SEQUENCE LISTING   DATE: 01/28/2004
PATENT APPLICATION: **US/10/019,661**   TIME: 08:11:50

Input Set : **A:\2977-127.seq.txt**
Output Set: **N:\CRF4\01272004\J019661.raw**

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 3 <110> APPLICANT: Zhang, Lian-Hui
 4        Dong, Yihu
 5        Xu, Jinling
 7 <120> TITLE OF INVENTION: Global Regulators of Bacterial Pathogenic Genes as Targets
for
 8        Engineering Disease Resistance
10 <130> FILE REFERENCE: 2977-127
12 <140> CURRENT APPLICATION NUMBER: US 10/019,661
13 <141> CURRENT FILING DATE: 2002-04-29
15 <150> PRIOR APPLICATION NUMBER: PCT/SG99/00128
16 <151> PRIOR FILING DATE: 1999-11-17
18 <150> PRIOR APPLICATION NUMBER: SG 9903146-0
19 <151> PRIOR FILING DATE: 1999-07-02
21 <160> NUMBER OF SEQ ID NOS: 4
23 <170> SOFTWARE: PatentIn version 3.2
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 1222
27 <212> TYPE: DNA
28 <213> ORGANISM: Bacillus sp.
30 <400> SEQUENCE: 1
31 ctttactgta ttgtttttatt caaaactaaa tgtaaaggtg gatacataat gacagtaaag     60
33 aagctttatt tcgtcccagc aggtcgttgt atgttggatc attcgtctgt taatagtaca    120
35 ttaacaccag gagaattatt agacttaccg gtttggtgtt atcttttgga gactgaagaa    180
37 ggacctattt tagtagatac aggtatgcca gaaagtgcag ttaataatga aggtcttttt    240
39 aacggtacat ttgtcgaagg gcaggtttta ccgaaaatga ctgaagaaga tagaatcgtg    300
41 aatattttaa aacgggttgg ttatgagccg gaagaccttc tttatattat tagttctcac    360
43 ttgcattttg atcatgcagg aggaaatggc gcttttataa atacaccaat cattgtacag    420
45 cgtgctgaat atgaggcggc gcagcatagc gaagaatatt tgaaagaatg tatattgccg    480
47 aatttaaact acaaaatcat tgaaggtgat tatgaagtcg taccaggagt tcaattattg    540
49 catacaccag gccatactcc agggcatcaa tcgctattaa ttgagacaga aaaatccggt    600
51 cctgtattat taacgattga tgcatcgtat acgaaagaga attttgaaaa tgaagtgcca    660
53 tttgcgggat ttgattcaga attagcttta tcttcaatta aacgtttaaa agaagtggtg    720
55 atgaaagaga agccgattgt tttctttgga catgatatag agcaggaaag gggatgtaaa    780
57 gtgttccctg aatatatata gtacaaaaag tcatgagctt attcgctcat gactttttcg    840
59 tttaaatgat tttttaaat aagttataaa ctttttaga actatcttca tttaattgat    900
61 agtacgtaag gtttacatca ttaggagtat cttgttgagc aatcatcact tcgttactgt    960
63 gatggtcaac tacccatatg aaatatttt tataagtccc atcctcgaaa gtaatccaca   1020
65 tatcacagtc tattaaatct gatccttctt catctaatgt taattttcct tttttggcgg   1080
67 tatccatact gttaatgaat gtttttaatt catctgtttt tgtgagaaag atatcctttt   1140
69 ttgtttttaat tgactcgaca tgtatatctt ttatttcttg ttttcctaaa aagacagggg   1200
71 gctcatttgg gtctctttga gt                                             1222
74 <210> SEQ ID NO: 2
75 <211> LENGTH: 250
76 <212> TYPE: PRT
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77  <213> ORGANISM: Bacillus sp.
79  <400> SEQUENCE: 2
81  Met Thr Val Lys Lys Leu Tyr Phe Val Pro Ala Gly Arg Cys Met Leu
82  1               5                   10                  15
85  Asp His Ser Ser Val Asn Ser Thr Leu Thr Pro Gly Glu Leu Leu Asp
86              20                  25                  30
89  Leu Pro Val Trp Cys Tyr Leu Leu Glu Thr Glu Glu Gly Pro Ile Leu
90          35                  40                  45
93  Val Asp Thr Gly Met Pro Glu Ser Ala Val Asn Asn Glu Gly Leu Phe
94      50                  55                  60
97  Asn Gly Thr Phe Val Glu Gly Gln Val Leu Pro Lys Met Thr Glu Glu
98  65                  70                  75                  80
101 Asp Arg Ile Val Asn Ile Leu Lys Arg Val Gly Tyr Glu Pro Glu Asp
102                     85                  90                  95
105 Leu Leu Tyr Ile Ile Ser Ser His Leu His Phe Asp His Ala Gly Gly
106                 100                 105                 110
109 Asn Gly Ala Phe Ile Asn Thr Pro Ile Ile Val Gln Arg Ala Glu Tyr
110             115                 120                 125
113 Glu Ala Ala Gln His Ser Glu Glu Tyr Leu Lys Glu Cys Ile Leu Pro
114         130                 135                 140
117 Asn Leu Asn Tyr Lys Ile Ile Glu Gly Asp Tyr Glu Val Val Pro Gly
118 145                 150                 155                 160
121 Val Gln Leu Leu His Thr Pro Gly His Thr Pro Gly His Gln Ser Leu
122                 165                 170                 175
125 Leu Ile Glu Thr Glu Lys Ser Gly Pro Val Leu Leu Thr Ile Asp Ala
126             180                 185                 190
129 Ser Tyr Thr Lys Glu Asn Phe Glu Asn Glu Val Pro Phe Ala Gly Phe
130         195                 200                 205
133 Asp Ser Glu Leu Ala Leu Ser Ser Ile Lys Arg Leu Lys Glu Val Val
134     210                 215                 220
137 Met Lys Glu Lys Pro Ile Val Phe Phe Gly His Asp Ile Glu Gln Glu
138 225                 230                 235                 240
141 Arg Gly Cys Lys Val Phe Pro Glu Tyr Ile
142             245                 250
145 <210> SEQ ID NO: 3
146 <211> LENGTH: 12
147 <212> TYPE: PRT
148 <213> ORGANISM: Bacillus sp.
150 <400> SEQUENCE: 3
152 Ile Leu Val Asp Thr Gly Met Pro Glu Ser Ala Val
153 1               5                   10
156 <210> SEQ ID NO: 4
157 <211> LENGTH: 12
158 <212> TYPE: PRT
159 <213> ORGANISM: artificial
161 <220> FEATURE:
162 <223> OTHER INFORMATION: consensus aspartyl proteases active site motif
165 <220> FEATURE:
166 <221> NAME/KEY: MISC_FEATURE
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Input Set : **A:\2977-127.seq.txt**
Output Set: **N:\CRF4\01272004\J019661.raw**

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167 <222> LOCATION: (1)..(1)
168 <223> OTHER INFORMATION: X= LIVMFGA or C
170 <220> FEATURE:
171 <221> NAME/KEY: MISC_FEATURE
172 <222> LOCATION: (2)..(2)
173 <223> OTHER INFORMATION: X= LIVMTAD or N
175 <220> FEATURE:
176 <221> NAME/KEY: MISC_FEATURE
177 <222> LOCATION: (3)..(3)
178 <223> OTHER INFORMATION: X= LIVFS or A
180 <220> FEATURE:
181 <221> NAME/KEY: MISC_FEATURE
182 <222> LOCATION: (5)..(5)
183 <223> OTHER INFORMATION: X= S or T
185 <220> FEATURE:
186 <221> NAME/KEY: MISC_FEATURE
187 <222> LOCATION: (7)..(7)
188 <223> OTHER INFORMATION: X= STA or V
190 <220> FEATURE:
191 <221> NAME/KEY: MISC_FEATURE
192 <222> LOCATION: (8)..(8)
193 <223> OTHER INFORMATION: X= STAPDEN or Q
195 <220> FEATURE:
196 <221> NAME/KEY: MISC_FEATURE
197 <222> LOCATION: (9)..(9)
198 <223> OTHER INFORMATION: X= any amino acid
200 <220> FEATURE:
201 <221> NAME/KEY: MISC_FEATURE
202 <222> LOCATION: (10)..(10)
203 <223> OTHER INFORMATION: X= LIVMFSTN or C
205 <220> FEATURE:
206 <221> NAME/KEY: MISC_FEATURE
207 <222> LOCATION: (11)..(11)
208 <223> OTHER INFORMATION: X= any amino acid
210 <220> FEATURE:
211 <221> NAME/KEY: MISC_FEATURE
212 <222> LOCATION: (12)..(12)
213 <223> OTHER INFORMATION: X= LIVMFGT or A
215 <400> SEQUENCE: 4
W--> 217 Xaa Xaa Xaa Asp Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa
218 1               5               10
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 01/28/2004
PATENT APPLICATION: US/10/019,661   TIME: 08:11:51

Input Set : A:\2977-127.seq.txt
Output Set: N:\CRF4\01272004\J019661.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 1,2,3,5,7,8,9,10,11,12

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:4

VERIFICATION SUMMARY   DATE: 01/28/2004
PATENT APPLICATION: **US/10/019,661**   TIME: 08:11:51

Input Set : **A:\2977-127.seq.txt**
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L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0